

Abstracts

Optimization of an Electrodynamic Basis for Determination of the Resonant Frequencies of Microwave Cavities Partially Filled with a Dielectric (Short Papers)

J. Krupka. "Optimization of an Electrodynamic Basis for Determination of the Resonant Frequencies of Microwave Cavities Partially Filled with a Dielectric (Short Papers)." 1983 *Transactions on Microwave Theory and Techniques* 31.3 (Mar. 1983 [T-MTT]): 302-305.

In this paper, a method of optimization of an electrodynamic basis is presented for determination of resonant frequencies of the microwave cavities containing dielectric samples. It is shown that the use of the suitable basis, consisting of several functions only, ensures a high accuracy of calculation of these frequencies. The presented method is useful for solving the boundary problem for the elliptic partial differential equation if the considered region has a regular boundary and is filled with inhomogeneous medium.

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